

## Evidence-based Practice in Computer Access Services

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## Access Intervention Process

- Determine client needs and goals
- Assess characteristics of:
  - Client
  - Environment
  - Task
- Compare possible solutions for input & output
- Recommend particular solution
- Implement recommendation
- Measure outcomes

## Evidence-based Practice (EBP)

- Make decisions based on evidence that relates to the client
  - External or field evidence
    - What are published outcomes for similar clients with similar needs?
  - Individual evidence
    - Clinical skills assessment
    - Client input
  - Knowledge and skills of the providers
    - What's worked well for similar clients that I've worked with?

## Evidence helps answer these questions:

- How well is my client's current system meeting her needs?
- Will a new access system benefit this student?
- Which access system will be the most effective? Why?
- Is the new system an improvement over the old one?
- Are my student's abilities changing over time?
- Are there barriers to better performance that we can work on?

## Role of Computer-Based Tools

- Focus on assessment of client abilities
- Present repeatable computer-related tasks in a realistic setting
- Aid in data collection and report generation

## Specific Tools for Computer Access Skills

- Assessment of Computer Task Performance
- EvaluWare
- Single Switch Performance Test
- Custom Solutions
- Compass

## Features to look for:

- Automatic recording of performance data
  - More accurate, more efficient
  - Frees clinicians to focus on subjective observations
  - Provides “hard data” to complement human judgment
  - Are the data correct?
- Computer-presented tasks
  - More repeatable, compare “apples to apples”
  - Efficient clinician control over test set-up
  - Customizable for client needs
  - Are the tasks valid?
- Storage and retrieval
  - Immediate reporting of results
  - Easily accessible for later review

## What is Compass?

- A software tool for clinical professionals who perform computer access and augmentative communication evaluations.
- Measures user performance in skills needed for computer interaction, such as keyboard and mouse use, navigating through menus, and switch use.
- Stores and reports the results.

## Demo of Main Compass Features

- Pointing Tests
  - Aim, Drag, and Menu
- Text Entry Tests
  - Letter, Word, Sentence
- Switch Use Tests
  - Switch Press, Scan
- Flexibility of test set-up
- Compatible with alternative inputs and outputs
- Speed and accuracy reports

## Compass Performance Report example uses

- Setting therapy goals
  - Identifying needs
  - Justifying areas of work
- Setting IEP goals
- Funding support
- Choosing methods and techniques
- Measuring outcomes

# Compass Software – example



## Switch Activation & Setup



Susan Smith (SmithSusan.cms) - Compass

File Edit Tools Help

### Switch Press Test Configuration

Test Name: Switch 1

Configuration Name: Standard

Input Device: Not Specified

Number of Trials: 10

Notes:

Feedback Options:

- Basic
- Engaging

Correct Trials:

- None
- Visual
- Auditory
- Both

Incorrect Trials:

- None
- Visual
- Auditory
- Both

Prompt Type:

- ☒ Visual
- ☐ Audio

Set Colors...

Selection Method:

- ☒ Press

Hold Time (sec): 0

Timing:

Max Time per Trial (sec): 30

Pause Time Between Trials:

- ☐ Constant
- ☒ Random

Min Pause (sec): 1

Max Pause (sec): 4

Preview Test Save & Continue Cancel

Help: On this screen, you can change the configuration settings for this test. To see what the new settings look like, click the 'Preview' button. When you are done, click 'Save & Continue'.

## Compass Switch Press Results

	Correct Trials	Avg. Trial Time (s)	Avg. Press Time (s)	Avg. Release Time (s)
Head Right	5/5	8.5	7.8	0.64
Head Left	5/5	9.0	8.5	0.57
Head Right - Embedded	4/5	17.4	11.1	6.32
Right Hand	2/5	19.4	15.6	3.8
Right Finger	4/5	11.2	8.6	2.5

NOTE Average Release Time

## Final Words

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Compass is available through:  
Koester Performance Research  
Infogrip  
AAC Institute  
EnableMart  
Technology for Education



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Example assessment provided by:

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